

**Julie Carson
EDTC 6035
Assignment 4**

SIOP Integrated 6 Point Lesson Plan

Key: TLW= The Learner will	TW= Teacher will	SWBAT= Students will be able to
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Teacher: Julie Carson Grade: Sixth Date(s): October 15-19, 2012	Technology Integration: MacBook Air laptop computers (1 per student), Excel Spreadsheet program	Content Area: <i>Math</i>
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Key Vocabulary: spreadsheet, cells, rows, columns, formula, ascending, descending Math Vocabulary: mean, mode, median, interquartile range

Common Core Objective: Math 6.SP.5 Students summarize numerical data by providing background information about the attribute being measured, methods and unit of measurement, the context of data collection activities (addressing random sampling), the number of observations, and summary statistics. Summary statistics include quantitative measures of center (median) and variability (interquartile range and mean absolute deviation) including extreme values (minimum and maximum), mean, median, mode, range, and quartiles.	Language Objectives: TLW compile data collected from the class from the number of each type of candy. TLW create an Excel Spreadsheet to show the mean for the number of candy pieces per student. TLW demonstrate their understanding of mode, median and interquartile range by using their spreadsheet to answer various questions and they will demonstrate their understanding of the concepts by summarizing in their own words on how to get the class mean, along with the mode, median and interquartile range for a student by writing down the process.
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Lesson Description: Each student receives a small bag of Halloween candy. They will prediction of how many pieces of candy they think we have has a whole class. Then they will make a prediction of how many pieces of candy they think each student has on an average. Students will then open their bags, sort their candies by type, count the number of each type, and record their information. Students will create an Excel spreadsheet with the types of candy on it, student names, total and mean number of pieces of candy. Students will then collect data from the rest of the students in class and put the data onto their Excel spreadsheet. They will then total the top row and use the fill down function to find the total for the additional rows. Next they will find the grand total of all of the students by adding that column together. Then they are to find the mean/average number of pieces of candy per student in class. The learner in their own words will summarize how to get the mean, mode and range.
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Higher Order Thinking Skills	Spreadsheet Skills	NTeQ Standards
Make inferences and predictions Create and interpret a visual	Create a header Enter data collected	3, 4, 5

presentation of totals and averages	Enter formulas to calculate totals and average	
Analyze data to determine Mode and median	Use fill down	
Summarize		

Activity	Description of Activities and Setting
Focus and Review (Establish prior Knowledge)	Many of you love candy. Today you are going to be sorting it, counting, creating and inputting data into a spreadsheet, finding the mean, mode, and interquartile range today. But before we do we are going to do a quick review. Here is a spreadsheet. I want you to tell me the parts of the spreadsheet and we are going to discuss how we would do a few other things that are necessary for you to be able to complete this assignment. (formulas, fill down, etc.) Discuss and review math vocabulary: mean, mode, median, interquartile range
Statement of Objectives (Inform students of Objectives)	By the end of lesson you will be able to demonstrate how to create a spreadsheet, input data, and find the class average for a specific total. You will also be able to demonstrate your understanding of median and mode by summarizing with your own words how to complete the process.
Teacher Input (Provide information and guidance)	You are going to do this activity independently. I will be here to help you if you need it but I want you to work on your problem solving skills, become familiar with Excel, and demonstrate your understanding of mean, mode, median and range.
Guided Practice	I have made each of you a bag of candy with various amounts of candy. Each bag has the same types of candy in it. You are going to sort it, count it, put the candy amounts onto your spreadsheet. Then you will collect data from all of the other students in the room. You will have a sheet with instructions on it to follow. You have a rubric to help guide you along the way to help you determine what grade you would like to earn.
Independent Practice	TW complete the candy sorting, counting and creating the spreadsheet. They will collect the data, fill in the chart, get the total, class mean, answer questions on the worksheet, which also includes summarizing mean, mode, and median.
Extension Activities	1. Have the students calculate the discrepancy between their prediction and the actual number of candy pieces there were. (They can add this data to the bottom of their spreadsheet). 2. Have students predict the total number of M&M's in each bag. Then find the class mean of M&M's per bag.

Closure	Have students talk and turn to a partner. Have them summarize to a partner one of the following vocabulary terms: mean, mode, median, interquartile range